UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

WORDLOGIC CORPORATION and 602531 BRITISH COLUMBIA LTD.,	)))	
	)	16 C 11713
Plaintiffs,	)	
	)	Judge Gary Feinerman
vs.	)	
	)	
CHICAGO LOGIC, INC.,	)	
	)	
Defendant.	)	

<u>**MEMORANDUM OPINION AND ORDER**</u>

WordLogic Corp. and its subsidiary 602531 British Columbia Ltd. (together,

"WordLogic") allege in this suit that Chicago Logic, Inc. infringed two patents, United States

Patent Nos. 7,681,124 ("the '124 patent") and 8,552,984 ("the '984 patent"). Doc. 1. The court

denied Chicago Logic's motion to dismiss. Doc. 22. Then, at the parties' request, the court

stayed discovery in order to conduct a mini-*Markman* hearing to construe one key term in each

patent. Docs. 24, 26; *see Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995)

(en banc), *aff'd*, 517 U.S. 370 (1996); *Ceats, Inc. v. Cont'l Airlines, Inc.*, 2012 WL 12903148, at

*2 (E.D. Tex. Feb. 14, 2012) (describing "the use of early 'mini-*Markman* hearings in

conjunction with limited discovery … to promote judicial economy and save the parties

considerable sums of money in attorneys fees where an early resolution of the case appears

appropriate and likely"). Having reviewed the parties' written submissions and heard argument,

the court construes the key terms as set forth below.

Background

The court will first briefly summarize the complaint's allegations and describe the patent

claims at issue. In setting forth WordLogic's allegations at this stage, the court does not vouch

for their accuracy. *See Jay E. Hayden Found. v. First Neighbor Bank, N.A.*, 610 F.3d 382, 384 (7th Cir. 2010).

WordLogic develops predictive text technology for computerized devices such as personal computers, tablets, and smart phones. Doc. 1 at ¶¶ 8-9. One of its products is a predictive keyboard application called "iKnowU," which is designed to make accurate typing faster and easier for mobile device users by predicting the letters, words, and phrases most likely to follow what the user has already typed. *Id*. at ¶ 11. The '124 and '984 patents cover the iKnowU technology. *Ibid*.

Chicago Logic is among WordLogic's competitors. *Id*. at ¶ 12. One of Chicago Logic's products is Big Buttons Keyboard Deluxe, which offers suggestions for completing words as a user types. *Id*. at ¶¶ 14-15. As a user enters letters on the keyboard, Big Buttons Keyboard Deluxe generates and displays a list of "completion candidates"—*i.e.*, what the user may be intending to type next. *Id*. at ¶ 16. When a list of completion candidates appears, the user has at least three options. First, she may decline all of the completion candidates by hitting the space bar, which terminates automated completion-candidate searching and displays only the keyboard. *Id*. at ¶ 17. Second, she may accept one of the completion candidates by clicking on the chosen candidate, which also terminates automated completion-candidate searching and displays only the keyboard. *Id*. at ¶ 18. Third, she may choose one of the completion candidates to initiate more searching by swiping up on that candidate, causing a new list of completion candidates (but not the keyboard) to be displayed. *Id*. at ¶ 19.

WordLogic alleges that this feature of Big Buttons Keyboard Deluxe directly infringes at least Claim 1 of the '124 patent. That claim, with the key term in italics, covers:

1. A method of supporting text entry on a personal computing device by allowing a user to automatically search for and select completion candidates displayed in a search list based on a partial text entry, the method comprising:

(a) receiving a user input signal;

(b) if the user input signal corresponds to declining all completion candidates displayed in the search list, terminating automated searching with the search list and displaying a digital keyboard while not displaying the search list with no consequence to the text entered into the personal computing device, and waiting for further user input from the digital keyboard;

(c) if the user input signal corresponds to accepting a completion candidate from the search list to replace the partial text entry and to terminate automated searching, terminating the automated searching with the search list, modifying the partial text entry to become the accepted completion candidate, displaying the digital keyboard while not displaying the search list, and waiting for further user input from the digital keyboard; and

(d) if the user input signal corresponds to selecting a completion candidate from the search list to initiate further searching, obtaining a new list of completion candidates *based on the selected completion candidate* and displaying the new list of completion candidates in the search list for further selection while not displaying the digital keyboard, and waiting for further user input from the search list.

Doc. 28-1 at 46 (emphasis added).

In addition to Big Buttons Keyboard Deluxe, Chicago Logic has a product called Big Buttons Keyboard Standard. Doc. 1 at ¶ 24. Both products "redirect key input from an application in which text is being entered to the keyboard application itself when a particular key is held for a predetermined amount of time, and then redirect key input back to the original application upon selection of a second key." *Id*. at ¶ 25.

WordLogic alleges that this feature of both Big Buttons Keyboard products directly infringes at least Claim 1 of the '984 patent. That claim, with the key term in italics, covers:

1. A computer-implemented method of processing a stream of input key events associated with user input received from a keyboard-type device, the keyboard-type device selected from at least one of a keyboard and a keypad, the method comprising:

(a) receiving input key events associated with a first process active within an operating system;

(b) monitoring the input key events for a first predefined input key event associated with user selection of a first key of the keyboard-type device for at least a predetermined time period;

(c) in response to identifying the first predefined input key event, redirecting the input key events from the first process to a second process wherein redirecting the input key events to the second process comprises *providing representations of further keyboard events to the second process, but not to the first process, for processing*;

(d) monitoring the input key events for a second predefined input key event associated with further redirection of the input key events; and

(e) in response to identifying the second predefined input key event, redirecting the input key events from the second process to another process.

Doc. 28-1 at 87 (emphasis added).

Discussion

A patent gives the patentee the temporary "right to exclude others from making, using, offering for sale, or selling the patented invention." *Apple Inc. v. Samsung Elecs. Co.*, 809 F.3d 633, 638 (Fed. Cir. 2015) (quoting 35 U.S.C. § 154(a)(1)) (brackets omitted). The scope of the patented invention is determined by the patent's claims—short statements describing what the public cannot do without the patentee's consent. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) ("It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.") (internal quotation marks omitted). A court hearing a patent infringement suit must construe the patent's claims, both to settle disputes about their scope and to translate technical terms into concise definitions that jurors can understand. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee

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covered by the claims, for use in the determination of infringement.") (alteration omitted); *AFG Indus., Inc. v. Cardinal IG Co.*, 239 F.3d 1239, 1247 (Fed. Cir. 2001) ("[T]he claim construction becomes the basis of the jury instructions, should the case go to trial."). Claim construction is a question of law, though it may require the court to make "subsidiary factual findings." *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015); *see also Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388 (1996) ("[J]udges, not juries, are the better suited to find the acquired meaning of patent terms."); *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015) (en banc).

A court generally should give a claim's words their "ordinary and customary meaning, as they would be understood by one of ordinary skill in the art in question at the time of the invention." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013); *see also Info-Hold, Inc. v. Applied Media Techs. Corp.*, 783 F.3d 1262, 1265 (Fed. Cir. 2015); *Source Vagabond Sys. Ltd. v. Hydrapak, Inc.*, 753 F.3d 1291, 1299 (Fed. Cir. 2014); *Function Media, L.L.C. v. Google Inc.*, 708 F.3d 1310, 1320 (Fed. Cir. 2013). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314; *see also Shire Dev., LLC v. Watson Pharm., Inc.*, 787 F.3d 1359, 1366-67 (Fed. Cir. 2015); *Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 805 (Fed. Cir. 2007); *Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001) (holding that claim terms were "not technical terms of art, and [did] not require elaborate interpretation"). If a term's meaning is not readily apparent to a lay judge, however, the court must consult "those sources available to the public that show what a

person of skill in the art would have understood disputed claim language to mean." *Phillips*, 415 F.3d at 1314.

Publicly available sources fall into two categories—"intrinsic evidence" and "extrinsic evidence." *Phillips*, 415 F.3d at 1317. Here, the parties rely exclusively on intrinsic evidence. Intrinsic evidence consists of the patent itself and the official records dealing with the patent's creation, including "the words of the claims themselves, the remainder of the specification, [and] the prosecution history." *Id*. at 1314; *see also Kaneka Corp. v. Xiamen Kingdomway Grp. Co.*, 790 F.3d 1298, 1304 (Fed. Cir. 2015) ("When interpreting claim language, courts consult the intrinsic record, which includes the specification and prosecution history."). Intrinsic evidence is the most important evidence of a claim term's ordinary meaning. *See Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) ("When construing claims, the intrinsic evidence is the primary resource."); *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009) ("When construing claims … the intrinsic evidence and particularly the claim language are the primary resources."). "Claim language must be viewed in light of the specification, which is the single best guide to the meaning of a disputed term." *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1324 (Fed. Cir. 2015) (internal quotation marks omitted). However, courts also must take care to avoid "importing limitations from the specification into the claim." *Phillips*, 415 F.3d at 1323; *see also Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014) ("While we read claims in view of the specification, of which they are a part, we do not read limitations from the embodiments in the specification into the claims."). Determinations based solely on intrinsic evidence are legal conclusions, not findings of fact. *See Teva*, 135 S. Ct. at 841 ("[W]hen the district court reviews only evidence

intrinsic to the patent … the judge's determination will amount solely to a determination of law … ."); *Williamson*, 792 F.3d at 1346.

The rule that a claim term bears its ordinary meaning has two exceptions: "lexicography and disavowal." *GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014); *see also Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Only the former is relevant here. "Lexicography" refers to the principle that a patentee is entitled to redefine terms—to "act as its own lexicographer." *Hill-Rom*, 755 F.3d at 1371; *see also Braintree Labs., Inc. v. Novel Labs., Inc.*, 749 F.3d 1349, 1356 (Fed. Cir. 2014) ("Under our precedent, the patentee's lexicography must govern the claim construction analysis."). If the patent's specification "clearly set[s] forth a definition of [a] disputed claim term other than its plain and ordinary meaning" and "clearly express[es] an intent to redefine the term," then that definition prevails. *Hill-Rom*, 755 F.3d at 1371.

The court now construes the key claim terms. *See AFG Indus.*, 239 F.3d at 1247 ("It is critical for trial courts to set forth an express construction of the material claim terms in dispute, in part because the claim construction becomes the basis of the jury instructions, should the case go to trial. It is also the necessary foundation of meaningful appellate review.") (citation omitted). The court is not obligated to choose the better of two incorrect proposed constructions; rather, it "has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." *Exxon Chem. Patents, Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1555 (Fed. Cir. 1995); *see also Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1274 (Fed. Cir. 2012); *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1323-24 (Fed. Cir. 2008).

I.   The '124 Patent

The only term at issue in the '124 patent is "based on the selected completion candidate," and the parties agree that the term should be construed to mean "using the selected completion candidate as the basis for further searching." Doc. 32 at 1. Although the court is not bound to accept the parties' construction, *see Bancorp Servs.*, 687 F.3d at 1274; *Praxair*, 543 F.3d at 1323-24; *Exxon Chem. Patents*, 64 F.3d at 1555, the court will do so here because the construction follows from the "the widely accepted meaning of commonly understood words," *Phillips*, 415 F.3d at 1314. The patent states that, after "selecting a completion candidate … to initiate further searching," the next step is "obtaining a new list of completion candidates," and that new list must be "based on the selected completion candidate." Doc. 28-1 at 46. It follows that the selected completion candidate is "the basis for" the new list.

The only question is whether the proposed construction adds anything beyond rewording. The parties agree that the term is already concise, and in effect propose a slight tweak only to ensure that the term will not be interpreted to mean "based on the mere act of selection of any candidate." Doc. 27 at 2; *see also* Doc. 29 at 1 (agreeing). That interpretation would be wrong; the claim says "based on *the selected* completion candidate," not "based on the act of selecting a completion candidate." Because the parties' proposed construction helps tidy up that potential ambiguity, the court adopts it.

II.   The '984 Patent

The parties differ over how to construe the following italicized term of the '984 patent:

> (c) in response to identifying the first predefined input key event, redirecting the input key events from the first process to a second process wherein redirecting the input key events to the second process comprises *providing representations of further keyboard events to the second process, but not to the first process, for processing*;

WordLogic proposes construing the term to mean:

> user keyboard input signals are received and processed by the second process (such as, for example, the virtual keyboard application) but not the first process (such as, for example, the word processing or other application receiving the text input)

Doc. 32 at 2. Chicago Logic contends that:

> "providing representations of" means displaying
>
> "keyboard events" means an "event associated with a particular key or set of keys supported by the keyboard-type device"
>
> "process" means "a computer-implemented process for completing a set of computer-implemented instructions in order to provide predetermined functionality to a user and which is receptive to user input. Such a process can be a computer program, including a software application, applet or the like, and can be either an independent program or it may be a program that provides certain functionality to a larger program."

Ibid. WordLogic agrees that, to the extent that "keyboard events" and "process" need their own definitions, Chicago Logic's definitions are correct based on the "lexicography" rule—both are derived from definitions written into the specification. Doc. 28-1 at 75, col. 3, ll. 49-56; *id*. at 75, col. 4, ll. 57-59; Doc. 29 at 2. But WordLogic disagrees that those words can or should be construed in isolation, and, more importantly, it disagrees with Chicago Logic's submission that "providing representations of" means "displaying." Doc. 29 at 2.

It is unnecessary to decide whether the disputed term could be construed in the piecemeal fashion that Chicago Logic proposes, because WordLogic's construction is sound and Chicago Logic's construction of "providing representations of" is not. In Chicago Logic's view, the technology at issue has to do with what the device's user *sees* on its screen, so the "representations" in question must be visual renderings. In WordLogic's view, the technology is concerned with the routing of signals between multiple computer processes, so although the input *could* be visually displayed to the user, it need not be to fall within the claim's scope. Doc. 29 at 7-8. Chicago Logic offers only common sense and what it says is the claim's plain

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language to support its view, arguing that "providing representations" cannot mean anything other than "displaying." Doc. 30; *see also* Doc. 27 at 2 (arguing only that "displaying" is "is easier to understand for a jury while still accurately capturing the claim scope"). WordLogic relies primarily on common sense, plain language, and the context of the rest of the claim and the patent as a whole. Doc. 29 at 6-8.

WordLogic is right, and Chicago Logic is wrong. As a matter of plain English, one can make a "representation" to something or someone nonvisually; to give just one example, lawyers make oral representations to this court all the time. This seems especially true in the context of computer software. The "representations" described in the claim are made "to" a computerized "process"—not "by" it, and not to a user—which suggests that they are made internally within the computing device. Nothing in the claim or the patent as a whole suggests that a visual rendering must be created of the signal that the process has received—and to conclude otherwise would be to read a limitation into the claim that its text does not admit. *See Source Vagabond Sys.*, 753 F.3d at 1299 ("Instead of looking to the words themselves, [one party's construction] added language without support from the specification or prosecution history, altering otherwise unambiguous claim language, a practice this court has repeatedly rejected."); *Phillips*, 415 F.3d at 1323 (cautioning courts to respect "the line between construing terms and importing limitations" by focusing on "how a person of ordinary skill in the art would understand the claim terms").

The definition of the word "process" confirms that a "representation" need not be displayed. The parties agree that "process" means (in relevant part) "a computer-implemented process for completing a set of computer-implemented instructions in order to provide predetermined functionality to a user and which is receptive to user input." In other words, the

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"input" of a process must be something on which "computer-implemented instructions" act. That would be the intangible internal signals generated when the user interacts with the device— the sort of thing that would be "provid[ed] … to" a computerized "process." Any visual display seen by a user, by contrast, would be an *output* from or—to use the language of the definition— the resulting "functionality" of the process. So WordLogic is correct that while the process *could* cause the input to be displayed to the user, it need not do so.

Further confirming this understanding, the claim describes "providing representations … for processing"—not for "display." And the claim nowhere limits "key events" to those that are capable of display; if the user input is tapping the letter "a," obviously the process could cause the letter "a" to be displayed on the screen, but what if the key event were, say, the user's pressing "Alt," "Shift," or "Caps Lock," all keys that do not typically display anything on their own? Nothing in the claim precludes providing such inputs to the second process.

Chicago Logic's piecemeal definitions would make the disputed term less concise and less clear. It would have the court instruct the jury that the claim covers: "[displaying] further [events associated with a particular key or set of keys supported by the keyboard-type device] to the second [computer-implemented process for completing a set of computer-implemented instructions in order to provide predetermined functionality to a user and which is receptive to user input. Such a process can be a computer program, including a software application, applet or the like, and can be either an independent program or it may be a program that provides certain functionality to a larger program], but not to the first [computer-implemented process for completing a set of computer-implemented instructions in order to provide predetermined functionality to a user and which is receptive to user input. Such a process can be a computer program, including a software application, applet or the like, and can be either an independent

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program or it may be a program that provides certain functionality to a larger program], for processing." That is neither clear nor concise—and a jury might rightfully wonder what it means to "display" something "to" a "process." *See O2 Micro Int'l*, 521 F.3d at 1362 (noting that one purpose of claim construction is "to clarify").

Conclusion

For the foregoing reasons, the court construes the key claim terms as follows. The term "based on the selected completion candidate" in the '124 patent means "using the selected completion candidate as the basis for further searching." The term "providing representations of further keyboard events to the second process, but not to the first process, for processing" in the '984 patent means "user keyboard input signals are received and processed by the second process (such as, for example, the virtual keyboard application) but not the first process (such as, for example, the word processing or other application receiving the text input)."

June 5, 2017

United States District Judge